

REMARKS

Claims 1-7 were originally presented in the subject application, and claims 8-10 were added during prosecution. No claims have herein been amended, added or canceled. Therefore, claims 1-10 remain in this case.

Applicants respectfully request entry of these remarks, and reconsideration and withdrawal of the sole remaining ground of rejection.

35 U.S.C. §103 Rejection

The Office Action rejected claims 1-10 under 35 U.S.C. §103, as allegedly obvious over Vaman et al. (U.S. Patent No. 6,011,780) in view of Callon (U.S. Patent No. 7,035,202). Applicants respectfully, but most strenuously, traverse this rejection.

Claim 1 recites a method for providing reliable communication in a system of directly connected data processing nodes. The method comprises detecting a failure of a node or a failure of connectivity to the node (failed node) using a heartbeat signal provided over a separate path to indicate to one or more other nodes in the system the failure. The method further comprises establishing, at one of the one or more other nodes, an instance identifier associated with the failure, the instance identifier indicating that communications of the failed node are to be discarded. The method further comprises sending notification of the failure, including the instance identifier, to the one or more other nodes having existing communications with the failed node, and terminating, at the one or more notified nodes, pending communications that involve the failed node, the termination being carried out in response to the notification.

Against the detecting aspect of claim 1, the final Office Action cited to column 11, lines 11-28 of Vaman. However, as explained more fully in Vaman with respect to the examples of FIGs. 6-8 in the remainder of column 11 and half-way down column 12, the alarm indication used is not a heartbeat signal, as explained more full below. In addition, Callon fails to remedy this shortcoming of Vaman.

As set forth in the present application at numbered paragraph 0018, and generally understood by those skilled in the art, a heartbeat signal is an “I am alive” signal. If the signal is not received in a given time, the node is considered to have failed. Both the FIG. 7 and FIG. 8 examples in Vaman are based on the more detailed topology of FIG. 6, as explained in column 11, starting at line 28.

In the case of the Vaman FIG. 7 example, the alarm indication is used by the message originator to request bandwidth on an alternate path when congestion on the primary path is indicated. See Vaman at column 11, line 46. No heartbeat signal is used. In addition, no details are provided as to how congestion is indicated.

In the case of the FIG. 8 example, the alarm indication is used to send a message forward in the primary path to set up an alternate path, eventually getting back to the message originator, who then resends over the alternate path. See Vaman at column 12, lines 18-32. Again, no heartbeat signal is used, let alone one provided over a separate path, as claimed. Moreover, no details are provided as to how Node 4 detects a failure, resulting in the sending of the alarm indication.

Against the establishing aspect of claim 1, the final Office Action cites to Vaman at column 12, lines 9-17. However, the alleged instance identifier, the alarm signal, says nothing to the recipient regarding discarding communications with the failed node, as claimed in claim 1; it only concerns setup of an alternate path for resending of the communication. In addition, Callon fails to remedy this shortcoming of Vaman.

Against the terminating aspect of claim 1, the final Office Action indicates that Vaman is silent, instead citing to Callon at column 5, lines 48-50, column 12, lines 54-67, and column 10, lines 45-50. However, wholly absent from the cited sections of Callon is the claim 1 recitation of terminating pending communications with the failed node. The cited sections merely teach that in response to the link failure message, no messages are sent out or routes used that involve the failed node. The cited sections of Callon say nothing about what is done with pending communications, only speaking prospectively to messaging/routing going forward.

Therefore, for at least the reasons noted above, Applicants submit that claim 1 cannot be made obvious over Vaman in view of Callon.

Independent claims 4 and 7 include aspects related to those argued above with respect to claim 1. Thus, the remarks made above with respect to claim 1 are equally applicable thereto. Therefore, claims 4 and 7 also cannot be obviated by Vaman in view of Callon.

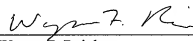
CONCLUSION

Applicants submit that the dependent claims are allowable for the same reasons as the independent claims from which they directly or ultimately depend, as well as for their additional limitations.

For all the above reasons, Applicants maintain that the claims of the subject application define patentable subject matter and earnestly request allowance of claims 1-10.

If a telephone conference would be of assistance in advancing prosecution of the subject application, Applicants' undersigned attorney invites the Examiner to telephone him at the number provided.

Respectfully submitted,



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